

Use Attainability Analysis  
for  
WBID 3251 Big Sugar Creek

Submitted by  
SES, Inc.

To  
Missouri Department of Natural Resources  
Water Protection Program

Date Received: June 4, 2007

**Field Data Sheets for Recreation Use Stream Surveys**  
**Data Sheet A - Water Body Identification**  
(For water body being surveyed)

**Water Body Information**

Water Body Name:	Big Sugar Creek	WBID:	3251
8 digit HUC code:	11070208	County:	Barry
Upstream Legal Description	21N 28W 20		
Downstream Legal Description	21N 29W 26		
Number of Sites Evaluated	3		
List all site numbers, listed upstream to downstream	1,2,3		

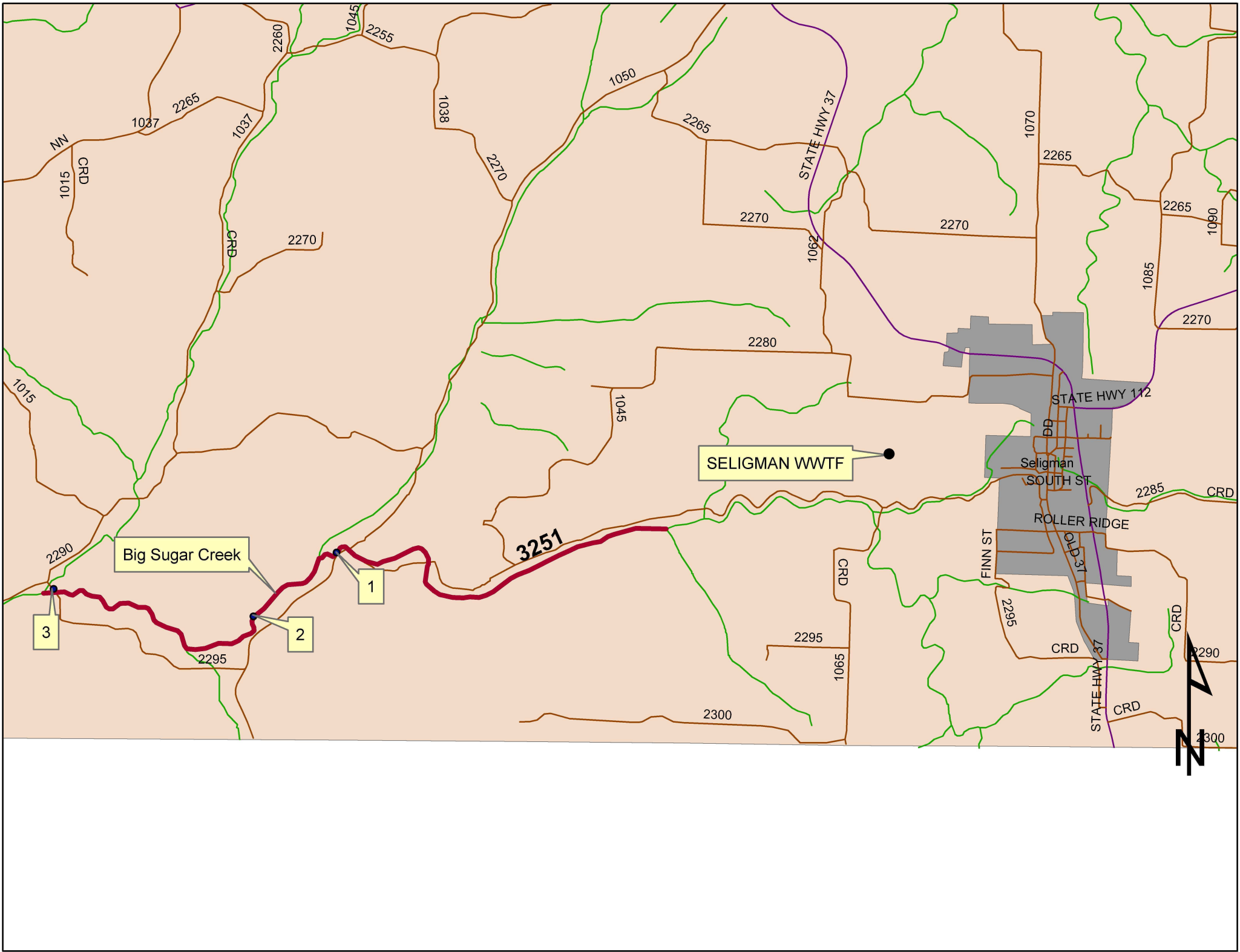
**Discharger Facility Information**

Discharger Facility Name(s):	Seligman WWTF
Discharger Permit Number(s):	MO 0111023

**UAA Surveyor**

Name of Surveyor:	Nolan Pringle	Telephone Number:	(913) 307-0046
Organization/Employer:	SES, Inc.		
Position:	Field Team Leader		

Signed: \_\_\_\_\_ Date: \_\_\_\_\_



**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
**(must be completed for each site)**

WBID 3251  
 Site # 1

Date and Time: 5/20/2007 17:00

Current Weather Conditions Sunny clear skies

Weather Conditions for Past 10 days: 1.72 inches rainfall

Drought Conditions? No

Site Location (e.g. road crossing) At HWY DD road crossing

GPS Mark: 47

Upstream Photo 92 Downstream Photo 93

**Uses Observed (Uses actually observed at time of survey) Circle**

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	<b>None of the Above</b>	Other	

**Surrounding Conditions**

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	<b>None of the Above</b>	Other	

**Indications of Human Use**

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	<b>None of the Above</b>

**WBID #** 3251      **Site #** 1  
**Mark #** 47      **Dissolved Oxygen (ppm)** n/a (Dried up)  
**Upstream Views Physical Dimensions:** Is there any water present at this view? no  
 If so, is there an obvious current? no

**Select one of the following channel features:**

	% of Channel Feature				
Riffle	n/a				
Run	n/a				
Pool	n/a				

**Downstream View's Physical Dimensions:** Is there any water present at this view?

If so, is there an obvious current?


Substrate:

50% Cobble	50% Gravel	% Sand	% Silt
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% Mud/Clay	% Bedrock
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**Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)**

Vegetation in the dried stream bed

### Water Characteristics

Odor	Sewage	Musky	Chemical	None	Other	<i>n/a</i>
Color	Clear	Green	Gray	Milky	Other	<i>n/a</i>
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other	<i>n/a</i>
Surface Deposit	Oil	Scum	Foam	None	Other	<i>n/a</i>

**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**

## Site # 1

Mark # 47

		Depth (m)
<b>Transect 1</b>		0.00
	Substrate:	0.00
	Gravel, Cobble	0.00
	Water Clarity:	0.00
	n/a	0.00
	Channel Feature:	0.00
	n/a	0.00
	Channel Width:	0.00
	n/a	0.00
	0.00	0.00
<b>Transect 2</b>		0.00
	Substrate:	0.00
	Gravel, Cobble	0.00
	Water Clarity:	0.00
	n/a	0.00
	Channel Feature:	0.00
	n/a	0.00
	Channel Width:	0.00
	n/a	0.00
	0.00	0.00
<b>Transect 3</b>		0.00
	Substrate:	0.00
	Gravel, Cobble	0.00
	Water Clarity:	0.00
	n/a	0.00
	Channel Feature:	0.00
	n/a	0.00
	Channel Width:	0.00
	n/a	0.00
	0.00	0.00
<b>Transect 4</b>		0.00
	Substrate:	0.00
	Gravel, Cobble	0.00
	Water Clarity:	0.00
	n/a	0.00
	Channel Feature:	0.00
	n/a	0.00
	Channel Width:	0.00
	n/a	0.00
	0.00	0.00

	Depth (m)
<b>Transect 5</b>	0.00
Substrate:	0.00
Gravel,Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 6</b>	0.00
Substrate:	0.00
Gravel,Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 7</b>	0.00
Substrate:	0.00
Gravel,Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 8</b>	0.00
Substrate:	0.00
Gravel,Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00

	Depth (m)
<b>Transect 9</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 10</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 11</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
**(must be completed for each site)**

WBID 3251  
 Site # 2

Date and Time: 5/20/2007 17:30

Current Weather Conditions Sunny, clear skies

Weather Conditions for Past 10 days: 1.72 inches of rainfall

Drought Conditions? No

Site Location (e.g. road crossing) At County Road 1050 road crossing (NW 150 yards)

GPS Mark: 48

Upstream Photo 94 Downstream Photo 95

**Uses Observed (Uses actually observed at time of survey) Circle**

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	<b>None of the Above</b>	Other	

**Surrounding Conditions**

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	<b>None of the Above</b>	Other	

**Indications of Human Use**

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	<b>None of the Above</b>

**WBID #** 3251      **Site #** 2  
**Mark #** 48      **Dissolved Oxygen (ppm)** n/a (Dried up)  
**Upstream Views Physical Dimensions:** Is there any water present at this view? no  
 If so, is there an obvious current? no

**Select one of the following channel features:**

	% of Channel Feature				
Riffle	n/a				
Run	n/a				
Pool	n/a				

**Downstream View's Physical Dimensions:** Is there any water present at this view?

If so, is there an obvious current?


Substrate:

50% Cobble	50% Gravel	% Sand	% Silt
% Mud/Clay	% Bedrock		

**Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)**

Vegetation in dried stream bed

### Water Characteristics

Odor	Sewage	Musky	Chemical	None	Other	<i>n/a</i>
Color	Clear	Green	Gray	Milky	Other	<i>n/a</i>
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other	<i>n/a</i>
Surface Deposit	Oil	Scum	Foam	None	Other	<i>n/a</i>



**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**

Site # 2

Mark # 48

	Depth (m)
<b>Transect 1</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 2</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 3</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 4</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00

	Depth (m)
<b>Transect 5</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 6</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 7</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 8</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00

	Depth (m)
<b>Transect 9</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 10</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00
<b>Transect 11</b>	0.00
Substrate:	0.00
Gravel, Cobble	0.00
Water Clarity:	0.00
n/a	0.00
Channel Feature:	0.00
n/a	0.00
Channel Width:	0.00
n/a	0.00
0.00	0.00

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
**(must be completed for each site)**

WBID 3251  
 Site # 3

Date and Time: 5/20/2007 18:00

Current Weather Conditions Sunny, clear skies

Weather Conditions for Past 10 days: 1.72 inches rainfall

Drought Conditions? No

Site Location (e.g. road crossing) At County Road 2295 crossing

GPS Mark: 49

Upstream Photo 97 Downstream Photo 96

**Uses Observed (Uses actually observed at time of survey) Circle**

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	<b>None of the Above</b>	Other	

**Surrounding Conditions**

City/county parks	Playgrounds	MDC conservation lands	Urban areas
Campgrounds	Boating accesses	State parks	National Forests
Nature trails	Stairs/walkway	No trespass sign	Fence
Steep slopes	<b>None of the Above</b>	Other	

**Indications of Human Use**

Roads	Rope swings	Foot paths/prints	Dock/platform
Livestock Watering	RV/ATV Tracks	Camping Sites	Fire pit/ring
NPDES Discharge	Fishing Tackle	Other:	<b>None of the Above</b>

**WBID #** 3251      **Site #** 3  
**Mark #** 49      **Dissolved Oxygen (ppm)** 6.5  
**Upstream Views Physical Dimensions:** Is there any water present at this view? yes  
 If so, is there an obvious current? no

**Select one of the following channel features:**

	% of Channel Feature				
Riffle	n/a				
Run	n/a				
Pool	n/a				

**Downstream View's Physical Dimensions:** Is there any water present at this view?

If so, is there an obvious current?


Substrate:

40% Cobble	40% Gravel	0% Sand	20% Silt
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0% Mud/Clay	0% Bedrock
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**Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)**

Vegetation in dried stream beds, algae covering submerged rocks, vegetation along banks, and some floating algae

### Water Characteristics

Odor	Sewage	Musky	Chemical	<b>None</b>	Other
Color	<b>Clear</b>	Green	Gray	Milky	Other
Bottom Deposit	Sludge	Solids	Fine Sed.	<b>None</b>	Other
Surface Deposit	Oil	Scum	Foam	<b>None</b>	Other

**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**  
**(Median Depth Shown in Bold)**

Site # 3

Mark # 49

	Depth (m)
<b>Transect 1</b>	0.05
Substrate:	0.05
Gravel, Cobble	0.05
Water Clarity:	0.05
clear	0.05
Channel Feature:	0.05
pool	0.05
Channel Width:	0.05
6 yards	0.05
<b>0.05</b>	0.05
<b>Transect 2</b>	0.05
Substrate:	0.05
Gravel, Cobble	0.05
Water Clarity:	0.05
clear	0.05
Channel Feature:	0.05
pool	0.05
Channel Width:	0.05
7 yards	0.05
<b>0.05</b>	0.05
<b>Transect 3</b>	0.10
Substrate:	0.25
Cobble, gravel, silt	0.50
Water Clarity:	0.70
clear	0.75
Channel Feature:	0.80
pool	0.80
Channel Width:	0.90
10 yards	0.90
<b>0.78</b>	0.90
<b>Transect 4</b>	0.15
Substrate:	0.35
Cobble, gravel, silt	0.60
Water Clarity:	0.75
clear	0.80
Channel Feature:	0.85
pool	0.85
Channel Width:	0.60
8 yards	0.60
<b>0.60</b>	0.55

	Depth (m)
<b>Transect 5</b>	0.05
Substrate:	0.05
Cobble, gravel, silt	0.15
Water Clarity:	0.20
clear	0.20
Channel Feature:	0.45
pool	0.70
Channel Width:	0.70
10 yards	0.75
<b>0.33</b>	0.45
<b>Transect 6</b>	0.15
Substrate:	0.30
Cobble, gravel, silt	0.60
Water Clarity:	0.70
clear	0.65
Channel Feature:	0.55
pool	0.45
Channel Width:	0.40
9 yards	0.30
<b>0.43</b>	0.20
<b>Transect 7</b>	0.05
Substrate:	0.30
Cobble, gravel, silt	0.70
Water Clarity:	1.00
clear	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	0.65
12 yards	0.40
<b>0.68</b>	0.15
<b>Transect 8</b>	0.25
Substrate:	0.75
Cobble, gravel, silt	0.85
Water Clarity:	0.80
Clear	0.35
Channel Feature:	0.20
Pool	0.00
Channel Width:	0.00
15 yards	0.45
<b>0.40</b>	0.45

	Depth (m)
<b>Transect 9</b>	0.05
Substrate:	0.05
Cobble, gravel, silt	0.05
Water Clarity:	0.05
clear	0.05
Channel Feature:	0.05
pool	0.05
Channel Width:	0.05
12 yards	0.05
<b>0.05</b>	0.05
<b>Transect 10</b>	0.05
Substrate:	0.05
Cobble, gravel, silt	0.10
Water Clarity:	0.25
clear	0.25
Channel Feature:	0.25
pool	0.20
Channel Width:	0.05
10 yards	0.05
<b>0.08</b>	0.05
<b>Transect 11</b>	0.05
Substrate:	0.10
Cobble, gravel, silt	0.20
Water Clarity:	0.40
clear	0.45
Channel Feature:	0.35
pool	0.35
Channel Width:	0.25
10 yards	0.10
<b>0.23</b>	0.10

**WBID# 3251 Big Sugar Creek**



**Site# 1 Photo ID# 93, Downstream**



**Site# 1 Photo ID# 92, Upstream**



**Site# 2 Photo ID# 95, Downstream**



**Site# 2 Photo ID# 94, Upstream**



**WBID# 3251 Big Sugar Creek**



**Site# 3 Photo ID# 96, Downstream**



**Site# 3 Photo ID# 97, Upstream**